

# AMERICAN VETERINARY REVIEW,

## OCTOBER, 1891.

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### EDITORIAL.

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UNITED STATES VETERINARY MEDICAL ASSOCIATION.—The twenty-eighth annual meeting of the United States Veterinary Medical Association is over, and its work, its successes and failures, is a matter of history. As with many similar meetings, there is much to commend, and not a little deserving of unfavorable criticism. In point of punctuality in meeting and prompt dispatch of business, it probably excelled all previous meetings; and it can happily be said that everything, and nearly everybody, was on time.

The Comitia Minora, upon the call of the President, convened on the evening of September 14th, with but two absentees, and transacted almost all the business to come before it, so that when the appointed hour for the regular session of this committee arrived, there was but little left for it to do; its work had been leisurely and carefully done, and when the appointed hour for the convening of the annual meeting arrived, the officers were in their places, and the Comitia Minora ready to report.

It is to be sincerely hoped that such promptness in the meetings and dispatch of business by the Comitia, will hereafter recur annually, and relieve the Association from the tedious waiting experienced last year at Chicago, and probably at most of the past meetings.

Aside from the ordinary routine of business, several matters of importance were considered and acted upon, or foundation laid for action by the Comitia Minora. First they

recommended that the proposition to elect to honorary membership Dr. Theobald A. Smith, B.A., M.D., Washington, D. C., and Dr. James Law, F.R.C.V.S., of Cornell University, be rejected. This report occasioned considerable surprise in the open meeting, and the reasons for such action on the part of the Comitia Minora were promptly demanded, and were as promptly given. No one discredited the high professional or social standing of either gentleman, no one thought them unworthy of honorary membership; but it was held by the Comitia, that so long as a man's education, location, age, and other environments rendered him freely available for active membership, it would be to the mutual benefit of Association and individual, and in every way proper, that he should enter into *active* membership, and reserve honorary membership for those veterinarians or other allied scientists of distinction, whose environments render them ineligible for election to active membership, or if eligible, are yet so situated as to make active participation impracticable.

This view of the Comitia Minora met the approbation of the open meeting. This action announces a new ruling, and establishes a new precedent in the Association, which is important. One thing in connection with this action was quite regrettable; the name of one, if not both the gentlemen, was inadvertently proposed at the meeting of 1890, without the knowledge or desire of the intended recipient of the honor, thus making it possible for the gentlemen whose names were proposed, or their friends, to feel that this unexpected action was taken on personal grounds. This, however, is far from being true, as in the open meeting no word was uttered by any member devoid of the greatest respect for both gentlemen, and there is doubtless no violation of desired secrecy when it is asserted, that every word uttered in relation to this matter in the Comitia Minora was equally respectful.

Should this ruling become an established precedent, it will exert a far-reaching influence on the *personnel* of the honorary membership, and restrict it chiefly to foreigners. In this relation, it might be well to note that it will probably be found advisable in the near future to provide honorary

membership or some equivalent for superannuated members. Many of the pioneer veterinarians of America, a number of whom were present at the birth of our Association, are now showing marked effects of age, and are not readily able to attend our meetings, and assume responsibilities in its labor. It would be a well deserved mark of esteem and source of gratification to these venerable men, and a credit to the Association they assisted to create, to confer upon them something akin to honorary membership, releasing them from responsibilities and duties, yet leaving them heartily free to enjoy any pleasures they might realize by attending our meetings and commingling with its members.

The Comitia Minora departed considerably from its traditions in the scrutiny exercised in recommending applicants for membership, with the result that more applicants were rejected probably than at any other meeting in the history of the Association—a procedure not likely to injure the Association.

The new application blank formally adopted at this meeting makes it incumbent for all applicants to make application in regular form over their own signatures, thus relieving the Association and members of the profession from the annoying and disagreeable process of electing to membership veterinarians whose names have been casually proposed by a member, without the knowledge or consent of the candidate, and later of being compelled to ignominiously "drop" the name of such unconscious members for non-payment of dues. More important, however, is the growing care with which the general character of intending members is examined, with regard to fitness and earnestness as members, and a very decided tendency to place the responsibility for the character of applicants upon the State or local Veterinary Associations.

So well marked is this tendency that it is generally understood that the Comitia Minora recommended the rejection of one candidate upon the sole ground of having for some time been a pseudo-member of a State Veterinary Association, in the work of which, although repeatedly importuned, he had refused or neglected to take any active part. Conse-

quently the Comitia held that if he would not work in his State Association, he would not be likely to prove an earnest laborer in the national body. It seems not improbable that in the near future an applicant for membership will need be an active worker in good standing in some local or state Veterinary Association (in localities where such are available) before he can hope to become a member of the U. S. V. M. A.

Such a course warmly commends itself to those who have the best interests of the profession and our Association at heart. Any veterinarian who cannot or will not do effective work in the local Association will generally prove of minor value to the national organization. In some cases there may be local difficulties, but these generally yield to an earnest desire to benefit the profession.

Probably the most important and far-reaching proposition ever placed before the U. S. V. M. A. was originated in the Comitia Minora by an informal discussion upon the desirable requirements for admission to membership, and took definite form in the open meeting, and we believe represented the unanimous wishes of the Comitia, in a motion by Dr. R. McLean to the effect that hereafter all applicants for membership, except those now graduated or matriculated, must be graduates from colleges requiring not less than three annual sessions of no less than six months each, exclusively devoted to the study of veterinary science, and that said colleges shall have a corp of not less than four distinctively veterinary instructors. We find here some of the chief reforms embodied which have been long urged in Association meetings, in the veterinary press and in other ways by many of the best friends of the profession. A special college committee has been in existence in this Association for some years, has written some and talked much. The committee is now left practically without a field for work, and has consequently been discharged. The day for "talk" has well nigh expired, and a distinct, clear cut, hard proposition is before us for action, and no opportunity for retreat has been reserved.

The battle *must* be fought, it *should* be won. It will be a

hard-fought battle, and the whole field should be well studied in advance and no hasty action taken, and all parties to the conflict should be prepared to gracefully submit in the end to the will of the majority. The solution of this question is of grave import, and involves questions intimately connected with the welfare of our society, profession and veterinary colleges, and we need to study the question in relation to all these in all their bearings.

To fully comprehend the possible effect of such restrictions upon the Association one must become fully conversant with its history from birth, and learn therefrom from what class of colleges it has heretofore drawn its chief support, who were the leading workers, essayists and discussants. If in the past these have been drawn mainly in proportion to numbers from the alumni of three-year colleges, it will be reasonably safe to conclude that the proposed restriction would, for the most part, reduce numbers without materially reducing the strength of the body as a whole.

A careful study of Dr. Huidekoper's address before the twenty-sixth annual meeting of the Society will shed much light upon this phase of the question, while the last two meetings, the most important so far held, are fresh in the memories of all. The men who do earnest and effective organizing work, present learned and valuable papers and reports, and lead in the discussion of scientific subjects, are the support of the Association, and the colleges from which they emanate constitute our "base of supplies" which we should in no wise cut off.

It is a notable fact that even in our largest meetings, when subjects come up for discussion from a purely scientific standpoint, the debate is generally confined to five or six members, and a recollection of who they are, proportionately, should indicate the possible result of the proposed amendment in our future discussions, which are, or should be, the most valuable part of our meetings. We should also count the possibility of schism or desertion, and carefully weigh its probable effect. We now have, in many respects, a very estimable Association, and we can ill afford to wreck it. Will

veterinarians who are now active, useful members, withdraw from the Association and injure it in every practicable way in case the proposed amendment prevails? If there be any such, their number and influence should be carefully estimated.

The influence of such a rule as that proposed upon our profession is a question of deep concern, which should in no event be passed over lightly. If it will redound to our good as a profession, this certainly constitutes our strongest argument in favor of the rule. If, by excluding from our Association certain classes we are to better our profession as a whole, we must understand the reasons for such belief. Could we, as an Association, benefit our profession more by excluding two-year men from our ranks? Would we, by this rule, induce more of the better classes to take three-year courses of study? Would the rule increase or decrease the average attendance at Veterinary Association meetings; would it increase or decrease the number and quality of our papers and reports at meetings; would it increase or decrease our volume and quality of current and standard veterinary literature? We should hold definite ideas also as to the duties of our Association toward the veterinary profession, and should determine whether aspirants for membership should be viewed from the standpoint of usefulness of the applicant to the Association, or *vice versa*. Shall we say that an applicant must be capable at the time of teaching members of the Association, or shall we only ask that he is capable of learning? The latter is the more philanthropic view, and probably the correct one. If it be correct, the question then arises what amount of special veterinary education is necessary before the member or applicant is capable of fully grasping the meaning, the truth of scientific papers and discussions? Our Association is, or should be, wholly above and beyond colleges, and should be prepared to take up and urge forward to higher development every earnest veterinarian capable of progress, provided that he is competent to enter advantageously into the work at a proper lower limit. Where is, or should be, that limit? If the average veterinarian from a college requiring but two sessions of four and a half to six

months each, is capable of comprehending scientific papers and discussions, have we any just right to bar him?

Although when we leave the college and enter the Association we do, or should, dissolve all allegiance with our *alma mater* in this respect, we should still remember the veterinary college as an essential factor in the growth and maintenance of our profession, and before changing our rules we should weigh its possible effects upon these. Will the rule aid worthy, sincere colleges?

The special college committee placed before the Association last year written assurances from the heads of all two-year veterinary colleges, save one, of their willingness and desire to bring their curricula up to the standard proposed in the rule. Will the new rule assist them in attaining this advancement? Should the rule pass at our next meeting, will its announcement lead intending veterinary students to seek colleges whose diplomas will be recognized by the U. S. V. M. A.? Will these two-year colleges which have so heartily expressed their desire for advance of curriculum proceed to advance with the support of the U. S. V. M. A., regardless of one or two unwilling colleges? Veterinary education has now reached such a stage, and veterinary colleges are multiplying so rapidly, that it is useless longer to present the plea that "we will advance our course to three years as soon as other two-year colleges will do the same." A shorter and more explicit statement would be "*we will not lengthen our curriculum.*" The question is now placed fairly before the colleges and they *must* answer. We hope for the information of those who must vote on this question next September, that the answer will be made soon.

Other questions of importance must necessarily enter into the discussion. Should pupilage under a practitioner be accepted in lieu of a certain amount of college work?

How shall we interpret "three sessions of not less than six months each, devoted exclusively to veterinary science?" Suppose we have three years of nine months each, with four-fifths of the time devoted exclusively to veterinary science, the other one-fifth to other sciences or studies which tend to complete and round out the mental man?

Here we have more veterinary study than required, but along with it comes other studies which rarely injure the educated veterinarian. How about matriculation examinations? Several of our two-year colleges graduate men who are not able to read or write the English language, and are total strangers to other tongues. Are they suitable for membership?

The rule proposes that the veterinary college shall have on its active teaching staff not less than four veterinarians.

Can we not have *one very good* veterinarian who would equal *four* of those who have graduated without being able to read or write.

And then who is a veterinarian? We would exclude the illiterate graduate with the title of V. S. and substitute the learned M. D., or possibly other scientist. Many veterinarians will say that the noblest thoughts, the grandest truths and the most powerful inspirations to study and research, the impulses which have done most to make them *men*, were received not from the V. S., but from a prominent M. D. in the capacity of professor of physiology, pathology, histology, etc. If they understand animal anatomy and physiology (and all genuine physiologists do), they are veterinarians in the highest sense of the word no less than in accord with the etymological derivation of the term "veterinarian."

Will these rank as regularly educated veterinarians under the new rule? Let us be careful; if anything is wanting, let it be inserted; if anything is indefinite, let it be made clear; and if the new rule passes, let it be so framed that misinterpretation will be impossible.

The question is before us and must be met. Let us fully and carefully consider it, and above all let every member feel it his duty to come prepared next September to express his opinion and cast his vote.

The columns of the REVIEW will be freely open for the discussion of the question, and we trust they will be promptly used.

W. L. W.

## ORIGINAL ARTICLES.

## THE VETERINARIAN AS A SANITARIAN.

By W. H. HOSKINS, D.V.S. Philadelphia, Pa.

(A Paper read before the Pennsylvania Veterinary Medical Association).

Standing to-day on the threshold of the most remarkable era in the history of the science of medicine, the veterinarian holds an anomalous position among the various lateral branches that go to make up the compact known as the science of medicine. The rejected stone of the builder has become at once the keystone of the arch. The once lowly and despised place of veterinary medicine in the column of science has leaped forward with startling power, to shine at the head, while bending around it, fall in lesser significance the feebler lights of our sister branches, glowing only in their refulgence to add luster and brightness to the main shaft, whose stupendous importance now leads us to bow our heads in deep meditation, as we gradually realize the weight of responsibility now resting upon our shoulders; we seem to be in a maze at the very edge of the momentous cloud, that soon threatens to envelop us in its depths of darkness, and from which we must grope our way by slowly but portentous tread, that upon the world may be shed the munificent benefits of health and strength, of relief from suffering, of freedom from bondage, whose heavy ties and demands have enfeebled and destroyed the power, in great measure, of the entire civilized and uncivilized nations of the earth. Our humble part in the world's work, our responsibility in the limited individual sphere of our daily duties, is freighted with the gravest responsibility as sanitarians, that must make the conscientious and earnest worker tremble at the significance and import of the work he has to do, of the part he must contribute to the solving of weighty problems, upon which, to a large degree, rests the progress of the entire world. The little, seemingly insignificant, coincidences of the past,

in the broader light of the to-day, are weaving a web of knowledge, a chain of evidence fraught with importance toward unraveling the mysteries operating in the causation and perpetuation of disease, that makes strong the hope that we are stepping upon a plane of action that will materially add to the prolongation of life, and give greater immunity from the pain and suffering of disease. The recorded coincidences of a multiple of cases of some one disease, perhaps of a hitherto obscure nature, as to the causes operating in its production, have contributed such significant evidence that experimental researches have made conclusive the deductions therefrom, and the number of cases of tetanus occurring in the future must be lessened to a marked degree.

The operation of castration in the lower animals; where a non-aseptic instrument, or an improperly prepared series of instruments, have resulted in a large percentage of deaths, usually attributed to some local cause, as of tetanus; the outcome of a dirty knife or ecraseur, from which the germs of tetanus have been carried from animal to animal, and the lack of proper antiseptics caused the loss of many lives, that should have been saved and perpetuated, to add to man's pleasure and enjoyment of life. The simple scratch upon the hand, insignificant as it may seem, has already cost the lives of many of our members, through the opening it offered for the entrance of the bacillus tetanus, from the patient it so often falls to our lot to treat.

The statement made so recently by so eminent an investigator as Thomassein that tetanus was of equine origin, and that he had produced a series of cases experimentally from actions of the medulla oblongata of the horse, startles us with its importance, and the long contended fact that the stable and manure pit especially were a favorable habitat and field of development for the germs, calls us to a field of responsibilities as veterinarians, that can no longer be ignored, and demands from each of us some part in the work to be done, to make conclusive these deductions, that we may find for them a remedy and safeguard, or to prove beyond any question their incorrectness.

That ever deceptive and cruel tormentor of so many precious lives, fickle and disappointing in all its promises, to which the entire world, from time immemorial, has rendered up its share to satisfy in vain its ravaging demands, popularly known as consumption, is to-day of such importance to us as veterinary sanitarians, that I might dwell wholly upon this one topic, to sufficiently warrant you, Mr. President, in assigning to me this subject for consideration.

Tuberculosis in all its allied forms and power, fully destructive character, baffling in treatment, and eradicating the lucid minds and brains of all ages, gathering only greater power and scope in its limits as time went on, until we had learned to tolerate its existence as a necessary evil, and to abandon all hope of remedying its inroads as hundreds by hundreds, thousands by thousands fell annually by the waysides, victims to its death grasp.

The humble victim as he passed us by, received only at our hands the commonplace pity of poor fellow, and the journals and news gatherers seemed only ready to chronicle his death, and summarize from year to year the awful numbers added to the countless thousands gone before.

A few short months ago the world was startled by the announcement of the claims of Prof. Koch, who many months before had discovered the tubercular bacilli, and following up his investigations, at last seemed prepared to claim the power to cure this fateful malady, and the world paused to bow, in humble attitude, before this great investigator; all eager to do him honor, and render up thanksgiving and prayer for this boon that promised so well; from every nook and corner of the earth all eyes were turned towards Germany, and from every center of medical learning the rapid tramp of footsteps could be heard as the last preparations were being completed to journey toward this wonderful Mecca, to learn of its means of use, its power of restoration, and witness its wonderful and miraculous achievements. But all this seemed short lived, and the weary tread of disappointed footsteps came slowly back upon our ears, and for the present we have yielded up the high hopes we had

entertained, and scan, with almost sarcastic credulity, the almost weekly announcements from all over the world, of curative injecting agents, that are sure to master the insinuating malady. The sound of the mason's trowel and the noise of the carpenter's hammer still rings in our ears, as the buildings, homes and hospitals go on, for the cure and care of consumptives.

The battle of words and the conflict of opinions among the learned minds of the scientific world continue, but from this new epoch we have much to learn, much to consider. While the cure of suffering, the relief of the dying is work of a noble character, we should not let it obscure the greater and more momentous question, of cause and origin of this dreadful curse to humanity. Let us remember with fitting importance its existence, perpetuation and increase among the animals over which we exercise care and guidance; not forgetting that the existence of tuberculosis has followed the introduction of milch cows in every nation and land where they have entered, refreshing our minds with the unchallenged statistics that the increase of death-rate and number of cases have multiplied in direct ratio to the increased number of cattle. The greater dependence of new countries on the food furnished in the shape of meat and milk has also with unerring certainty multiplied the number of tubercular cases. Milk and meat, forming a greater part of our existence from infancy to old age, is in complete accord with the records that remind us of its destroying influences at every stage of life. Tuberculus meningitis in the new-born babe and advanced phthisis in those of mature years, with all the other different forms it assumes in every grade and condition of life, seems fittingly in line with the knowledge that it exists in every type and breed of cattle, and oftentimes finds its easiest prey in those kept specially for the milk supply, because of its seemingly greater richness. The well fed as well as the forager for its existence offers fallow ground for its development, and the palatial walls of the millionaire, as well as the lowly cottage, where the family cow is the chief means of existence, all add their testimony to the close relations the

milk and meat supply occupy in the annals of tuberculosis. Hundreds of recorded coincidences of the past in the light of to-day add powerful and almost conclusive testimony to the origin of tuberculosis, and it commands us as veterinarians to be foremost in the sanitary field to awaken our people to the importance of more care and watchfulness of this hitherto neglected source of danger.

The fearful and loathsome sight that so often has made our blood tingle throughout our body and our face flush with feverish excitement, lest we should be among its victims, as we beheld the pitiable brute covered with running ulcers of farcy or detected in the uplifted head and dilated nostril the ragged ulcer of glanders, whose bacilli is claimed to-day stands at the head of the list as the most wonderful generator and prolific in cultivation, that were its opportunities sufficient would wipe out in a few years the entire equine race, and add more real misery to our existence that few of us would be here to-day, either eager or willing to participate in veterinary circles, or adopt it as a means of livelihood. The most exacting duty falls to our lot as sanitarians in limiting the existence of this disease; and the most imperative duty commands us in so thoroughly eradicating it wherever found that full security may be offered those of the equine race remaining as well as the protection of attendants and all users of public vehicles, waterings troughs, common hitching posts and sheds, that shall add to your value as citizens in every community where you reside.

The origin of rabies and its dread sequel in man of hydrophobia lies within your domain, fellow members, and the special need of your services in every village and town may prove of the utmost importance at any hour. It specially commands you in every household where you enter, to be as equally confident on one hand as to the correctness of your diagnosis of rabies, that every opportunity may be afforded to those who fear contamination, from a scratch or bite already received, to receive proper treatment, as on the other hand that the suspected symptoms exhibited by the family pet are positively not those of rabies, and to afford convinc-

ing reasons of the same. That no victims of lysophobia may ensue from a perverted nervous system, the result of fright or undue anxiety, your services may at times prove the most grateful boon to a community when your judgment is sought as to the so frequent misjudged mad dog and the well recognized fact of the frequency of newspaper outbreaks of hydrophobia and the frightful consequences wrought on already overstrained minds from fears entertained as to a simple scratch or bite received years before, will make your services of the greatest value in tendering a careful opinion so thoroughly guarded that all will fear to proclaim the subject, and your village or town will fall back into its wonted quietness, and the infrequency of the disease rabies and its fellow hydrophobia soon reach the place it should do in the common mind of our people. Remember, here are quite a large number of well-authenticated cases of lysophobia on record to-day, and while currently reported as hydrophobia, would almost all have yielded to preventive treatment had proper measures been resorted to at the time needed.

The feline existence of diphtheria and possibility of its being the origin of it in those of tender years of the human family, affords a field of research for all, and the necessity of you familiarizing yourselves with its appearance as described in the cat, becomes apparent to you at once. In large cities, where these animals come under our care and treatment for so many ills, I would advise the most zealous watchfulness on the part of the veterinarian that will shed light on this hidden question. The most accurate records should be maintained and added to the sum of knowledge already obtained that must soon answer this problem, and thus afford this means of control and immunity to our children from this fatal disease.

I can only briefly in this paper refer to your duties in aiding in preserving our nation from the losses entailed through the now imported disease of dourine or equine syphilis. The determination of what is best to be done with those affected members of the bovine species with actinomycosis, the necessity of their early recognition and the education of your client

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of the wisdom of destroying them and ridding their flocks of all affected cases, the oftentimes commonly termed "lump jaw" sold to your neighboring butcher to be served up upon your own tables, may be the progenitors of some case of actinomykosis in your own family, and it behooves you to exercise the most energetic influence in your community for the proper recognition of your importance as a veterinarian and sanitarian, in awakening the minds of your people to the dangers thus lurking in their meat supply.

The need of watchful care as to trichinosis and measly pork is too well known to need any comment except to show the breadth and scope of our field of labor in the direction of sanitary work. The preventive measures for the extermination of the *tænia cercus cellulosæ*, *tænia mediocanellata*, will at no distant day be placed forcibly upon our shoulders. The prevention of our people and the commercial interests of the world are clamoring to-day for relief from the disastrous influences, physically and pecuniarily, that yearly follow in the train of existence of hog cholera and swine plague. The frequent origin of ringworm in the prattling babies about our feet, as they fondle the playful kitten, is not too insignificant to deserve your recognition.

Further down in the scale of life lie the unestimated losses of chicken cholera and many other contagious and infectious diseases, that partly decimate or wipe out entirely our flocks of fowls, whose value to the communities in which you reside are worthy of your patient efforts to limit. Aside from all this, fellow members, as if this was not more than we could sustain in our efforts as veterinary sanitarians, to-day upon your burdened shoulders the responsibility of familiarizing yourself with the dangerous power that the milk supply of our nation exercises in acting as the vehicle of transportation of such diseases as diphtheria, scarlet fever, typhoid fever and perhaps many other equally disastrous diseases that sap vitality, producing limitless suffering among those of every age, color and condition.

What are you doing in your community to awaken your fellow citizens to the importance of your work as sanitarians?

Are you aiding and supporting every effort of your brothers in the sister science to cover our broad land with a sanitary science and police system that shall bring untold benefits and relief to suffering humanity and the brute creation? Are you exercising the personal vigilance which is your first duty in self-preservation in protecting your streams from pollution of such kind and nature as in within your daily province?

The easy method for the lazy one to rid himself of some specimens of contagious and infectious disease through casting in the stream that runs by his door, or to bury just under the sod in some sandy soil along the course of a waterway, the reeking carcass, filled with myriads of germs to carry disaster and destruction to his innocent neighbors miles below. Have you forgotten the pest of hog cholera, that daily lessens the wealth and happiness of your neighbors in Jersey, for the use of the streams for the burial of the dead? Have you forgotten Plymouth in this fair valley, and its scourge of typhoid fever, from the little polluted mountain streams that trickled to the water supply of the town?

Are you unmindful of the severe and deeply felt losses incurred in Monroe county of your native State, from the pestilence of glanders that infected almost every public water fountain, every common hitching shed and post, and is still forcibly reminding us of the great need of a veterinary sanitary police for Pennsylvania.

Are you agitating in your community the necessity of a thorough inspection of your milk supply and specially its sources of production, the fountain head of its dangers, as well as the necessity of vigilance in the lesser dangers lurking in its part from commercial impurities?

The health and freedom from disease of the animals producing this life-giving fluid is of the first importance; the cleanliness and use of pure food in its production ranks next; following in their train the need of prompt measures to suppress its use, when the source of its production may furnish fitting opportunities for its acting as the vehicle of transmission of some other contagious malady.

At its place of consumption you are to ward against its

contamination, again from commercial impurities, the work of unscrupulous dealers and the addition of water and robbing of cream, the use of coloring matter, the addition of boracic and salicylic acids to maintain its sweetness may at once become of the utmost importance to the family physician dealing with some obscure disturbance of the digestive tract in the little babe, whose steps from infancy to old age are dogged by so many hidden and incipient dangers.

In cities of the first class the time is now ripe for the establishment of public abattoirs, where every piece of flesh intended for public consumption should be examined before admission for distribution, while in the process of preparation, and again macroscopically and microscopically before emerging from its walls to be placed upon the stalls as an article of food for consumption.

In the State a thorough sanitary police bureau, sustained by just and reasonable laws, through which the veterinarian may rise to the position he soon is destined to fill, if you are alive, fellow members, to the importance of your own position. A chief at the capital of our State, with a staff for the work as a whole, while at both ends of our commonwealth staffs for work of a more local character; these with trained aids at every chief railroad center and city, would be enabled to cover our entire State with a sanitary police system which would save thrice over the expense entailed in limiting the commercial losses, while the benefits accruing to the limitation of diseases and suffering would be inestimable. The future of medical science finds its strongest hope in sanitary work and the prevention of disease seems more likely to afford us better fruits than the limitless creation and production of medications.

Pleading with you, fellow members, for more aggressive work in agitation and individual efforts, commanding you as an Association to accept the role of leadership that falls so justly within your domain, I prophecy for you the grandest future, as far beyond your anticipation of to-day and your hope of to-morrow, as the distant scintillations of the glorious sunrise may be compared with the lowering clouds that so

suddenly part in vivid flashes of lightning and end in peals of distant thunder that portray the threatening storm that fills us with terror.

Thanking you for your patient indulgence, I submit this subject for your thoughtful consideration.

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### RESULTS OF LARYNGITIS OR PHARYNGITIS.

By J. F. BUTTERFIELD, D.V.M., Philadelphia, Pa.

(A Paper read before the Pennsylvania Veterinary Medical Association.)

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It is rare that we have an inflammatory affection of the larynx without the pharynx showing more or less of the disease. The same of inflammation of the pharynx. The inflammatory action extends to and involves the larynx. They being in such close proximity in our patients, it is in many cases difficult to tell which is the original seat of the lesion, the pharynx or larynx. The results will differ, if the animal survives the acute stages, in proportion as the different parts are affected. What I wish to call attention to is perhaps due to pharyngeal inflammation, more than to the same disease in the larynx. Two peculiar and interesting cases have made their appearance in my practice; the more interesting because I have been unable to find any account of like cases in what few books or journals I have access to; neither have I talked with any practitioner that has observed these results. When we had the first case I did not think much of it, but when we had the second it seemed as though others must have observed the same following sore throat.

The first one I saw in May, 1885. The other in the spring of 1889.

The first one I did not see until two or three months after it was first sick. The other I saw at different times until it died. The symptoms, as I saw and learned them from their owners, were as follows: The owner of the first one came to my place about the middle of May, said he had an eight-year-old horse, that after being driven in a rain storm in winter had a severe trouble in the throat or head, that he dis-

charged great quantities of stuff from his nose ; he said it was difficult for him to swallow food, and water returned by the nostrils ; also that he was in good condition when first taken sick, but now was a mere skeleton and very weak. At the owner's request I went to see the horse. Found him at pasture eating grass, which seemed almost wholly to return by the nose, mixed with saliva. Offered him a pail of water ; he seemed thirsty, put his mouth to the water and drank for ten minutes, the water returning by the nostrils, except perhaps two quarts in the ten minutes.

He held his nose out a little, as a horse usually does with sore throat. There was no manifestation of pain in manipulation of the throat, nor was there any swelling visible. There was a peculiar hoarse, rasping cough, quite frequent especially when eating grass. (This peculiar cough I have failed to hear in the other case).

When the nose was flexed towards the breast it developed severe suffocation. I made examinations in many ways, such as probing nostrils, passing probang, &c., but could not decide upon anything. Had owner send him to my place, that I might the better watch his symptoms. After watching for two weeks I gave chloroform and explored the pharynx with my hand. By this means I discovered the exact cause of the symptoms manifested. I found the posterior-superior wall of the pharynx enlarged and folded or dropped down over the entrance to the œsophagus, and when the nose was flexed towards the breast the fold extended over the entrance to larynx, causing the suffocating symptoms. Not seeing how we could in any way effect a cure, I destroyed him by bleeding from carotid artery. An examination after death confirmed my diagnosis. The guttural pouches were clean and free from pus. There was no inflammation except a slight reddened appearance of the epiglottis, which I attributed to irritation caused by the cough. The other parts were normal. Had I not made the examination through the mouth it is quite possible I should have made the post-mortem without discovering what the lesion was.

The other case a mare fifteen years old. I saw her first

a few days after she was taken sick. At this time I diagnosed it simple sore throat, which I believed it was at the time, due to taking cold. The owner said the stable door blew open one night and left her in a draught of air. I prescribed external stimulants and electuaries. It was not until I saw her the third time, which was some four weeks after she was taken sick, that I decided it to be like the other case. She had a cough at first, deep and strong, but did not develop that peculiar, rasping cough until this time. Food and water returned by the nostrils, but not such marked irritation in breathing and never the suffocating symptoms. I prescribed iodide of potassium and tonics with varying results. At times there seemed some improvement. About three months later much worse symptoms developed, and it seemed quite probable the animal would starve to death. It died, starved to death, in about four weeks more. Autopsy the next day revealed only the same derangement as in the other case, with the exception the fold of the posterior-superior wall of the pharynx did not drop down as low, nor did it obstruct the entrance to the larynx. Only the entrance to the œsophagus was obstructed by the fold. These cases, I believe, are due to paralysis of the muscles of the pharynx, the results of a pharyngitis or laryngitis. The pterygoid muscle is perhaps the one most involved. In human medicine following serious cases of sore throat are observed, not unfrequently, paralysis of some of the parts, causing impediment in speech and inability to control fluids in swallowing, loss of voice, &c. There is a stallion in our town that has no voice, due if I mistake not to laryngitis when quite young. Roaring in many cases is pretty generally accredited to paralysis, and that the result of laryngitis.

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### ABSCESS OF THE GUTTURAL POUCHES.

By W. RIDGE, V.M.D., Trevese, Pa.

(Paper read before the Pennsylvania Veterinary Medical Association).

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Bay mare, six years old, well bred, weighed about 925 pounds, served by Epaulet September 23d, 1890. Taken sick

August 3d with symptoms of pharyngitis. Another mare taken with similar symptoms recovered in two days. The symptoms were seen in severe chills; weather was warm, and it took two heavy blankets on her before she stopped shaking. I found after the chill head lowered, nose out straight, champing the jaws continually (which lasted at intervals throughout her sickness), seemed anxious to eat; would chew the food, then quid it; fluids when swallowed would be returned up through the nostrils, a gulping sound was produced when swallowing, then would cough; the cough was moist and with repel we had a slight foamy discharge from nostril; the temperature was 103° F., which gradually lowered to normal on the 10th, to rise to 103° on the 22d after a severe hemorrhage. Respirations were normal until the 25th, when they began to increase in frequency. On 16th we had a free discharge of a stringy, foetid mucous; the breath was very foetid after this until death. There were no swellings over the guttural pouches or any part; no dyspnoea at any time; vesicular murmur over both lungs; no points of dullness on percussion; on turning did not show any stiffness except head and neck; pulse was normal, full and strong, and not above 45 until after the hemorrhage, when it rose to 90. Mucous membrane were of rosy hue until after the hemorrhage, when they became pale. Bowels were normal, urine appeared normal.

My diagnosis was at first pharyngitis, later post pharyngeal abscess, and was at first treated by heart sedatives, with pot. nit. in drinking water followed in a few days by hyd. bin. iod blister to throat, and internal treatment by tonics—dig., ac sulph., pot. sod. and consultations. Dr. Raynor was called on the 14th. He found great tenderness over the third cervical vertebræ, which he thought was due to an injury. Then we blistered the neck and used hot packs. On the 16th she discharged about one pint of a stringy, foetid substance from the nostrils, as if it came from some cavity. After this we had a frothy discharge as before, except it now remained foetid. We now added ferri sulph. to our treatment. On the 17th Dr. Raynor again saw her, when he confirmed my

diagnosis of post pharyngeal abscess, with a good prognosis. Temperature now  $100\frac{2}{3}^{\circ}$ , pulse 42, respiration 14. and eating three pints of oats besides oatmeal, gruel and also grass and apples. But yet the head was held stiff as in poll evil, and if we attempted to move the head it gave her great pain. This condition lasted without change until the 21st, when in the night she commenced with a violent hemorrhage, bleeding fully six quarts. When I arrived it had nearly stopped, but was flowing from nostrils and mouth, the mouth champing. The discharge was without cough and did not discommode her, as she would offer to eat while bleeding. The blood was pure blood and without foam; gave her ext. ergot, when the hemorrhage stopped. In about one hour she commenced coughing and sneezing, when the hemorrhage again commenced. We administered morphia and canabis ind., followed by ext. ergot fl.  $\text{3 iii}$  every twenty minutes until she took  $\text{3 iii}$ , when we had no more hemorrhage. Next morning gave her whiskey, milk and eggs, also tr. bellad., cinchonæ sulp. and spt. mts. dulc. The next morning, 22d, Dr. Raynor again saw her, when he approved of my treatment. The temperature now rose to  $103^{\circ}$ , respiration remained 15, pulse 90, and weak but regular. The prognosis was now grave, as the mare refused to take any nourishment. On the 23d she began to take gruel, but had much difficulty in swallowing it. Temperature rose to  $104^{\circ}$ , respiration normal, pulse 84, weak. On the 24th Dr. Raynor again saw her. He thought it best to swab her throat out with a solution of ferri sulph., which was done. Temperature  $103^{\circ}$ , pulse 80, respiration 14. On the 25th temperature  $102\frac{4}{5}^{\circ}$  in vagina, respiration 18, pulse 90; not eating; eye looks dull; countenance haggard; nose straight out; head in corner; legs cold; rectum patulous; examined lungs; did not feel sure as to their condition; also thought I had trouble in guttural pouch, and wanted to perform hyovertibrotomy but wished advice. Sent for Dr. Zuill, who found a small patch of pneumonia in right lung, and did not think there was anything wrong with the guttural pouches, so did not approve of operation. Applied blister to right side of chest. The left lung seemed all

right. The prognosis was now grave, as mare had not enough strength to stand much of a pneumonia. On the 26th the temperature was  $102\frac{1}{8}$  in vagina, respiration 29, pulse 95, weak but regular, eyes sunken, mucous membrane dry, legs cold, crepitant rales in middle and upper part of right lung, while we had mucous and blowing rales in the bottom. We now had crepitant rales in the left lung at the bottom. She stood in one place with the head in corner, breath with same fœtor, but more so when disturbed.

On the evening of the 28th the animal died; autopsy was held at 10:30 A.M. next day. Temperature of weather  $80^{\circ}$  in shade. Animal lying on left side, emaciated, but not tympanitic. Animal evidently had not struggled; lying on peat moss; no discharge of fluids from any opening. Made incision along the linea alba from pubis to sub-maxillary space, skinned down the neck, then sawed off inferior maxillary bone anterior to molars, disarticulated, dissected down to guttural pouch. Parotid and sub-maxillary salivary glands normal. Opened right guttural pouch, which was perfectly healthy; then opened larynx, which had a few minute points of inflammation. On opening the pharynx found the mucous membrane inflamed and points of ulceration; the teeth were stained black, tongue normal. On opening the left guttural pouch we found it about half full of cheesy, fœtid pus and decomposed blood clot, and extensive ulcerated condition of the mucous membrane. The hyoid bone was ulcerated until it was disarticulated at its upper extremity. The ulceration extended through the occipito-atloid articulation. The cartilage of the occipital and atlas highly inflamed and ulcerated. The ulcerations had extended into the spinal canal, the fluids pushing the meninges from the bone. The sinews were healthy.

The third cervical was perfectly healthy, as well as the muscles overlying it. Skinned down the side, taking off the front leg with the skin, cutting the ribs top and bottom, leaving lungs exposed. Cavity contained but very little fluid which was not fœtid; the pleura inflamed over the spots of pneumonia bottom part of right lung; also anterior lobes

becoming gangrenous, with pneumonia extending to middle. On section showed points of breaking down, left lung hypostatic, congestion with a commencing pneumonia in the lower part, with anterior lobes breaking down, pericardium slightly inflamed, endocardium normal, chicken fat clot in heart and aorta, abdominal normal but pale, anæmic.

Dr. Ridge wanted to know what the Association thought caused the pneumonia, and how long could we have had the anterior lobes affected; also what was the primary trouble, whether due to injury, breaking the hyoid of pharyngitis, ulcerating up the Eustachian tube; whether the pneumonia could be caused by ergot constricting the blood vessels to such an extent as to produce gangrene, or whether due to entrance of blood, producing traumatic pneumonia.

Dr. Hoskins thought it was due to low, weakened condition of animal. Drs. Raynor and Hoskins thought it was originally an injury.

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## TETANUS.

BY CLAUDE D. MORRIS, V.S., Bath, N. Y.

(A Paper read before the New York State Veterinary Medical Association).

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Tetanus is a constitutional traumatic infective disease, acting upon the central nervous system, primarily, and which is clinically characterized by spasm and rigidity of definite muscular groups, as a physiological result of the ptomaines of bacillus tetani.

Bacteriological studies and the classification of this disease as of an infectious character, is of recent date. In 1859 Betali related the case of a bull that died of tetanus after castration; several slaves ate of the flesh of the dead animal, and of these three were (in a few days) seized with tetanus, and two of them died. In 1870 Auger reported a case in which a horse has spontaneous tetanus, after which three puppies which had been in the stable were also affected.

Larger, in 1853, saw a woman who had a fall while cleaning a farm-yard, causing a slight wound of the elbow. Four

weeks later she was seized with tetanus, and on investigation, it was found that a horse affected with that disease had been in a stable opening into the yard where she fell. He also mentions another circumstance. In a small village, where tetanus was previously unknown, five cases appeared in eighteen months under quite different climatic conditions. Of these one had been taken to a hospital, after which two others in the same ward became affected with the disease.

The oxogenous origin of the disease has been proven by Nicolaier, who produced the disease by injecting into the tissue of animals bacillus taken from earth. Rosenbach found the same bacillus in the pus of a patient suffering from traumatic tetanus, and the identity of the bacillus of tetanus with Nicolaier's bacillus of earth tetanus was demonstrated by Koch in 1887.

The physical characters of bacillus tetanus, stained with fuchsin x 1,000, are those of an anærobic micro-organism, which presents more than ordinary life, with a spore at the extremity having the appearance of a broken drum-stick. Kitasato, in speaking of the bacillus as to its function of reproduction, says that the bacillus tetani produce spores in thirty hours in culture kept at a temperature of the body. They possess great resistance to heat, as they have been active after an exposure of one hour to 80° C. of moist heat, but they are destroyed by placing them in a sterilizer heated to 100° C. for five minutes.

The bacillus has been found in different kinds of surface-soil, and in street dust. In man it has been found, in tetanic patients, in the wound secretions, in the nerves leading from the seat of infection and in the spinal cord.

#### . CULTIVATIONS, INOCULATION EXPERIMENTS, ETC.

It has been a question of dispute among pathologists as to the specific cause of the disease. The same question has been raised in connection with the pathogenic action of the bacillus tetani as with pus microbes, i. e., is the disease of which it is the specific cause due to the presence of the microbes or the ptomaines which it elaborates in the tissue?

It has therefore been demonstrated beyond doubt that the ptomaines of the bacillus of tetanus cause tetanic convulsions. However, symptoms in many respects analogous to that of tetanus, can be produced with strychnia when given in toxic doses. If this and other drugs belonging to the same group can act upon the spinal cord in such a manner as to cause spasms and muscular rigidity, we should therefore expect that if the microbes of tetanus produced ptomaines in the tissues these might produce the same effect on the cord, and that the symptoms are produced by them and not by the direct action of the microbe.

It is conceded by nearly all authorities that there are but few bacilli present in the blood of tetanic patients, and in many instances in which the disease was produced artificially the blood was after found sterile. On the other hand more microbes have been found at the seat of primary infection, and in the tissues between it and the spinal cord than in the blood itself. Perhaps stronger proof than any as yet brought forward, to show that the direct cause of the disease is the product of the microbes and not the microbes themselves, is the experiments made by Brieger, who has succeeded in isolating four toxic substances from mixed cultures of the tetanus bacillus in sterilized emulsion of meat.

The first, tetanin, when administered subcutaneously in mice, produced the characteristic symptoms of tetanus. The second, tetanotoxin, causes first tremors, followed by convulsions and paralysis. Third, the muriate of toxin produces well-marked symptoms of tetanus, besides exciting the lachrymal and salivary glands to increased functional activity. The last, spasmotoxin, also produces clonic and tonic spasms, which prostrate the animal at once.

As to the etiology of tetanus it has been clearly demonstrated beyond all doubt that the disease is due to microbic influences, whether ushered in as a traumatic idiopathic or artificially by infections of wound-secretions of tetanic patients, or by using mixed or pure cultures. The essential cause of the disease is the bacillus first discovered by Nicolaier in earth, and by Rosenbach in the wound-secretions of a tetanic patient.

The period of incubation seems to be extremely variable in both man and animal; in some cases existing only twenty-four hours, in others lasting weeks between the time of infection and the first manifestations of the disease. This may be accounted for. First, the number of bacilli introduced into the system may be so small that a longer time is necessary before the disease is manifest. Second, the character and location of a surgical operation in many instances acts as an infection atrium, also the anatomical characteristics of the tissues surrounding it may influence the time which is necessary to develop the disease.

The investigations of Brieger have shown that tetanic convulsions in animals are produced by injections of tetanin, one of the toxic ptomaines derived from cultures of the bacillus of tetanus. It is more than probable that the active symptoms of tetanus are due, not to the presence in the tissues of the bacillus, but to the toxic action of the ptomaines on the spinal cord; so that the duration of the period of incubation is further modified by the capacity of the infected tissues to yield to different ptomaines. As in the second instance the character of certain surgical operations play an important part as an infection-atrrium in the practice of veterinary surgery. My experience leads me to believe that operations and injuries in the soles of the feet, and as a signal to castration and the extirpation of the thyroid gland for bronchocele are operations in which the greatest tendency to this disease resides. Weiss reported thirteen cases of tetanus occurring after removal of the thyroid gland. In fifty-three total extirpations of the thyroid gland for goitre made by Billroth tetanus followed in twelve cases, while no cases occurred in one hundred and nine partial operations. Gautier has collected seventy-four cases of tetanus, thirty-six following abortion and thirty-eight following confinement. Autopsies were made in fifteen cases. Three presented on microscopical examination of the brain and cord no appreciable lesion; in one case a retained putrefied placenta was found in the uterus; in five suppurative metritis; in one, ovarian cyst; in one, hemorrhage into the lateral ventricles. Ten patients recovered, five after abortion, five after labor.

As to symptoms, diagnosis, and other details of the same, I consider it unnecessary to delineate before such a body as this, as all present are conversant with the symptoms of tetanus; there is only one thing, however, I would enjoin—that is, a too hasty diagnosis may result in a little embarrassment, as the writer has been twice deceived upon the first and a hasty diagnosis. In this case it was in a five-year-old mare used for road purposes; she had gone lame three or four days previous. The owner sent the stable boy to the drug store to procure a pound of flaxseed. He having other shopping to do, returned soon to the store and took what he supposed to be his package. On arriving at the stable he made the necessary preparations to putting the lame foot in a poultice. In so doing he offered the animal a handful of his flaxseed, which, he says, she seemed to eat with delight. The poultice was applied. At eleven o'clock I was called to see the animal. She at that time was standing in a box tied in opposite directions, right fore foot pointing in a neatly prepared poultice, head and tail extended, saliva and froth issuing from the lips, which were closed, ears erect and stiff, body rigid and in convulsions, and in a slight perspiration. Upon raising the head and slightly tapping the neck I noticed that the membrane nictitans did not move over the orbit, as is so constant in tetanus. Yet in the absence of that symptom I felt justified in my diagnosis. The only history I could get of the case is that already stated. Ordered poultice removed and parts washed, as I wished to examine the foot. At this point in the proceeding I was able to find the cause of these tetanic convulsions.

The poultice was made of *po. nux vomica* instead of ground flaxseed, and the quantity the animal had eaten was about  $\frac{3}{4}$  ij. In citing this case it is for the purpose of showing the physiological effect of this drug on the nervous centres and upon certain muscular groups. As in tetanus, we get like symptoms produced by the physiological effect of the bacillus, that is, the product of the bacillus, what they are capable of throwing off, and certain other peculiar substances (resembling alkaloids) which are produced during the process of putrefaction of the dead ones in the system.

Regarding the treatment of this disease, nearly every known element that acts as a nervous sedative has been used to a greater or less extent with varying degrees of results. Experience, however, leads me to believe that drugs play a minor part in the successful issue of the disease, and that no one drug can be relied upon as a panacea. That the disease must be treated according to the various stages of the disease at the time we first see it is, to my mind, a very essential feature. If seen in the early stages, when there is but partial rigidity of the voluntary muscles, and trismus is not perceptible, and deglutition is but little, if any impaired, a thorough purge at that stage is the sheet-anchor of success, followed with soda hyposulphite and carbolic acid, enjoining at the same time perfect quietude.

If the patient is not seen until all the symptoms are well established, the jaws more or less firmly set and occasionally convulsions, to offer a purge at that stage must be guarded discriminately. However, if it can be administered without exciting the animal, it is beneficial. I have had the best success under these circumstances by administering subcutaneously sulphate of eserine and dilute hydrocyanic acid, by allowing the animal to drink alternately the bromide of potash and hyposulphite; and if the disease is the result of an injury, thoroughly cleanse the wound and treat it antiseptically.

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### HYPODERMIC MEDICATION.

Translated by RICHARD MIDDLETON, A.B., D.V.S., Philadelphia, Pa.

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These medicines, in proper form, are placed in the subcutaneous connective tissue by means of a syringe adapted to the purpose; from this point they enter the general circulation, and ultimately spend their force upon the organism.

This syringe is filled with a sterilized solution of the desired medicine at a temperature of about 86°F; the instrument is then inverted, and the needle placed in position upon its end. In order to exclude any air which may still be in the

same, the piston is forced inward until a drop of the fluid appears.

When there is no indication to the contrary, those locations which contain much cellular tissue are selected as points of injection; for instance, the cervical and pectoral regions. Portions of the anatomy in which the connective tissue is attenuated should be avoided; likewise those localities which offer prolific nervous development, or which present any pathological process. It is also evident that those points of the body should be chosen which cannot be bitten or readily rubbed by the patient.

The part selected is washed with corrosive sublimate solution 1-3000, and the skin of the same is grasped between the thumb and the first two fingers, and raised; the needle is then introduced at the base of the fold so produced and the contents of the syringe discharged.

The part is afterward manipulated and compressed to facilitate diffusion.

Of the small number of substances which can be applied in this manner, the following are of the most interest to the practical and progressive veterinarian.

*Æther.* This is, per se, injected where a rapid stimulating agent is indicated, as in a sudden diminution of the vital forces (collapse). Cats and dogs take minims xv-xx per dose. In the large animals, in order to avoid large doses, it is used in connection with camphor (quod vide).

*Amyl Nitris.* English veterinarians have tried this substance in tetanus; it is injected twice per day, commencing with gr. xv and increasing gradually to gr. xxxv.

*Antipyrinum.* Very soluble in water. Diminishes the temperature and relieves neuralgic pains. Especially valuable in fevers of a rheumatic nature; a 20 per cent. solution is used subcutaneously. The expensiveness of this drug and the poisonous symptoms elicited by its continued use form two objections to prevent its universal adoption. For dogs the dose is regulated by the size of the animal, and ranges from gr. viii to xlv.

*Apomorphinum Hydrochloricum.* This applied in a 2-3 per

cent. watery solution. For dogs and young swine this is an excellent emetic. Dogs take gr. one-sixth, swine gr. one-sixth ii. It is particularly extolled by Feser and Lemke, who injected gr. ii-iii once a day in cattle afflicted with pica, and in sheep suffering from wool eating.

*Atropinum Sulphuricum.* Soluble in three parts of water, and so used. Given as an antidote in strychnine, pilocarpine and physostigmine poisoning; also in spasmodic states of the unstriated muscular fiber (in this connection happily combined with morph. hydro.) Pro dosi horses gr. i-ii; cattle gr. i; dogs gr.  $\frac{1}{10}$ - $\frac{1}{2}$ . (Doses are not absolute).

*Camphora.* An excellent neurotic stimulant; administered as spiritus camphoratus, oleum camphoratum, or, still better, as an ætherial solution 1-4. Horses and cattle take of the latter 3ss-1i, repeated if necessary.

*Quinia.* Quininæ hydrochloras may be used dissolved in glycerine 1-6, or alcohol 1-3. Quininæ sulphas is dissolved in glycerine, through heat, in the proportion 1-3. Sometimes the desired result is obtained after giving horses and cattle gr. i; and in dogs after giving gr. 1-1i of the quin. hydrochl.

*Curare.* The dose as well as the therapeutic value of this agent are questionable.

*Morphinum Hydrochloricum.* Morph. sulph. may also be prescribed. Both are soluble in equal parts of glycerine and water; by the aid of heat morph. hydrochl. dissolves in five parts glycerine. Morphine injections are indicated when cerebral excitability is to be decreased. The worth of morphia salts as local anæsthetics is attested by many practitioners. The dose for horses is not much over gr. viii, while large doses cause dangerous unquiet of the animal (first stage of the toxic effect). Cattle may be given the same dose; dogs require  $\frac{1}{8}$ - $\frac{1}{2}$ . The modern and only scientific method of treating colic involves a rectal examination with a view to ascertaining its cause and securing indications for its rational treatment. Morphine is a powerful agent which facilitates this, and under certain conditions it is the only remedy which makes it possible. Spasmodic colic ceases with the establishment of quietude, and here it is well united with atropin.

*Pilocarpinum Hydrochloricum.* Excites practically all glands to increased activity, wherefore it is endorsed as a diaphoretic, sialagogue, expectorant, diarrhœicum, etc. According to Ellenberger, perspiration in the horse follows doses of gr. vii-ix, and salivation is seen from gr.  $\frac{2}{3}$ -i. Large doses induce pulmonary œdema! Moller advances this medicine as a stimulant to the rumen in tympanites. The dose for cattle is gr. ii-iii; for sheep, gr.  $\frac{2}{3}$ . Signol used pil. hydrochl. much in ascites of the horse; he introduced first gr. iii p, then gr. v, and finally gr. vi p. Klemm applied gr. xii in subacute cerebritis, and gr. xv-xviii in immobility; he covers the patients with blankets, which were gradually removed after twelve hours.

Hypodermic injections of gr. iii-vii once daily are strongly advocated in muscular rheumatism of horses; also in laminitis, gr. vii-xi. Such large doses must not be given without the antidote (atropin) at hand. We have tried the daily application of pil. hydrochl. for its expectorant effect, in doses of gr.  $\frac{1}{3}$ -i, and can warmly recommend it.

Respecting purgation, it is advantageous, says Ellenberger, to administer physostigmine and pilocarpine together; the idea is to utilize the hydrogogue effect of the latter in aiding the peristaltic action of the former. Horses take gr. iss. of pil. hydroch., followed by gr. iss. of physostig. Instead of pilocarpine one may use muscarine in gr.  $\frac{1}{3}$ - $\frac{2}{3}$  doses; the latter is, however, too expensive.

*Pilocarpin-Eserin.* Prepared by Maase in Gorlitz. We have frequently convinced ourselves, in the clinic, of the excellence of the compound as a purgative in colic cases. It is dissolved, or comes as a powder in small bottles which contain gr. vii., the proper dose for an adult horse.

*Secale Cornutum. Ergota.* Uterine contractions are induced by this drug. From its vaso motor action it may be serviceable in hemorrhages. Extractum secalis corunti dyalysatum is the proper preparation to use hypodermically. Mares and cows require 3 ss.-i; bitches, gr.  $\frac{1}{3}$ -xv. Ergotinum Bonjean is also much used in aqueous solution.

*Strychninum Sulphuricum.* Exceedingly soluble in water,

especially after the addition of a small quantity of alcohol. Results can be expected from strychnine in the handling of a paralysis or a paresis which is not referable to pathological or mechanical causes. In any case, strychnine must not be brought into use until the inflammatory symptoms have disappeared; under the same rule this agent may be used with benefit in disordered sensibility (amaurosis). It is a powerful and reliable antidote to chloral hydrate poisoning. Horses and cattle take gr.  $\frac{1}{2}$ -i. I have seen threatening symptoms follow a dose of gr. i. Ellenberger only succeeded in saving a horse that had received gr.  $1\frac{3}{4}$ , by injecting atropin. For sheep and goats the dose is gr.  $\frac{1}{10}$ - $\frac{1}{2}$ ; for dogs, gr.  $\frac{1}{64}$ - $\frac{1}{30}$ . If toxic symptoms manifest themselves, do not delay atropin.

*Thallinum Sulphuricum.* Easily soluble in water, or water and glycerine. Introduction of the acid solution is quite painful. If an antipyretic effect is desired in a medium sized dog, the animal receives primarily gr.  $\frac{1}{3}$  of morph. hydrochl., which is followed in ten minutes by gr. ix of thallin. sulph. The reduction occurs regularly, and lasts twelve to sixteen hours.

*Veratrinum.* Dissolved in alcohol, and then diluted with glycerine or water. Locally very irritating. Up to the present time almost exclusively used in rheumatism, and with good results. Cagny commends veratrin injections in pneumonia; in three cases where he prescribed this treatment, he saw the pyrexia diminish, and a rapid convalescence follow. He dissolved one part of veratrin in twenty-five parts of alcohol, and introduced 3 i-ii of the same. Cattle and horses take gr.  $\frac{3}{4}$ -i; swine, gr.  $\frac{1}{6}$ - $\frac{1}{2}$ ; dogs, gr.  $\frac{1}{6}$ .

Mertens reports the death of two horses after receiving gr. ii dissolved in one ounce each of alcohol and aqu. distill.; they expired under symptoms of clonic spasms and nausea. Veratrin is also accounted a good stimulant to the pausen in tympanites in gr.  $1\frac{3}{4}$ -ii for an adult bovine. Since the introduction causes pain, precautionary measures must be taken (exercising, etc.).

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REPORTS OF CASES.

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AMERICAN VETERINARY COLLEGE—HOSPITAL DEPARTMENT.  
RUPTURE OF THE SUPERIOR ATTACHMENT OF THE TWO CORAIS  
RADIALIS MUSCLES—REMARKABLE POSITION ASSUMED AS A  
RESULT.

By E. NESBIT, D.V.S., House Surgeon.

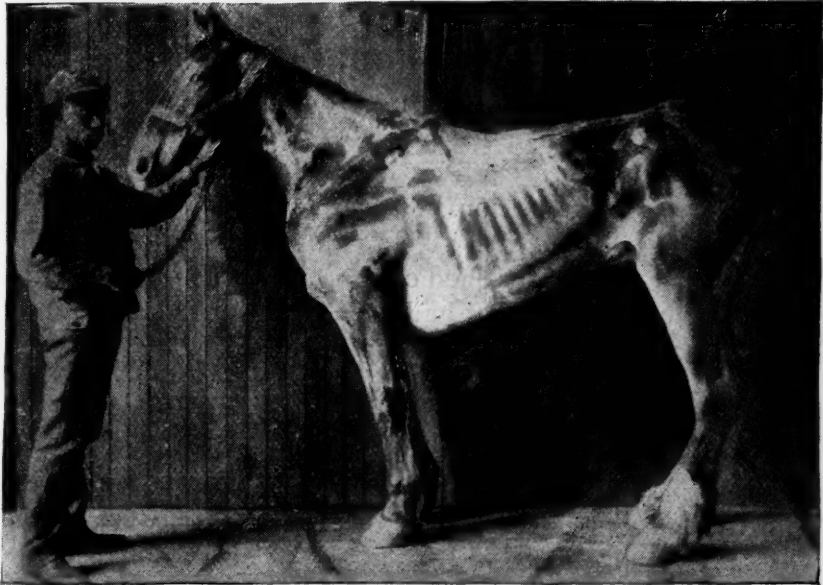
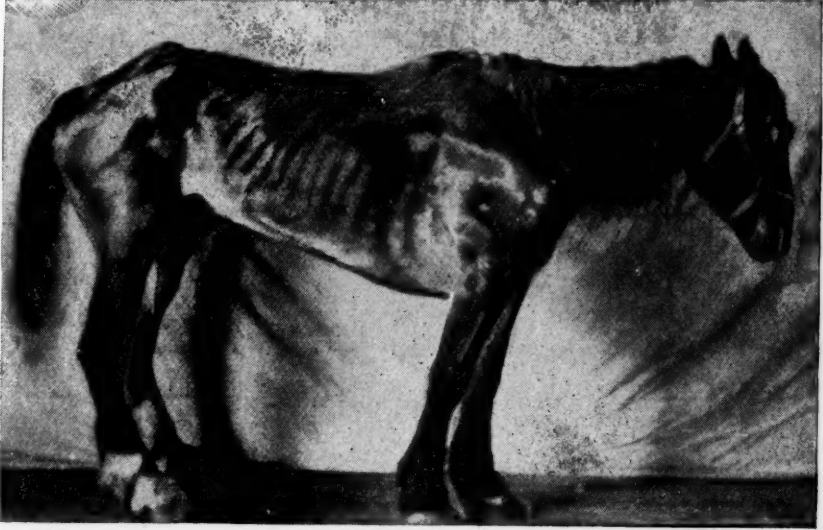
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Through the kindness of Prof. J. L. Robertson, we were presented with a bay gelding about fourteen years of age, accompanied by the following history: He had been owned by the Standard Oil Co., of this city, from the spring of 1888 till the time of his destruction, which occurred June 11, 1891. During this time he had never been known to be sick or lame. Had been used as a truck horse, having the same care as the other horses in the same stable. Some time during last January he was suddenly taken lame and stiff in both fore extremities, the apparent seat of which was in the shoulders, which were swollen, and when manipulated, pain was evinced.

A diagnosis of rheumatism was made and the ordinary mode of treatment adopted. The appetite remained good for four or five weeks and then gradually failed, and he never fully regained it, although he began to improve, so far as his rheumatism was concerned; so much so, in fact, that he was occasionally used to do light work, the lameness having subsided, and he seemed to be in good condition except his poor appetite.

On the morning of May 11th he was driven from his stable on Forty-sixth street, apparently in good condition, to Thirty-seventh street, a distance of about one-half of a mile, when he suddenly stopped and when urged to move was found unable to do so, having lost all control over his anterior extremities, although he remained standing. An ambulance conveyed him to the stable and here he was placed in slings. From that time he began to emaciate very rapidly. In health he weighed nearly 1400 lbs., and when destroyed 1100, showing a loss of from 250 to 300 lbs.

This great emaciation was not the only remarkable change that was going on in his economy, but one equally as interesting in the position he assumed while standing. This change rendered him a very pitiful subject and the accompanying wood cuts will serve to illustrate the change



better than I can describe it. The following description was just before his destruction: Animal very much emaciated; standing quite firm on legs; top of dorsal vertebræ measured fifteen hands and one-half of an inch from the ground; when bought he measured sixteen hands and one inch high, thus showing a decrease of four and one-half inches in height; scapulæ almost horizontal, thus nearly closing the scapulo-humeral angles; thoracic cavity sunken between fore extremities, so that the sternum is down to the lower half of the radius. From before, chest very hollow and sunken; anterior extremity of sternum retracted; both scapulo-humeral articulations very much swollen, but not painful to the touch; the pectoral muscles are enlarged and very prominent; great serratus atrophied, as were also the olecranon muscles. Temperature  $100^{\circ}$  F., pulse 90 and full, respiration about normal. When made to move does so quite easily with an occasional stumble. As all of us have a good general idea of the anatomy of the scapulo-humeral articulation, it will be unnecessary to say anything of its structure, so we will glance at the post-mortem and see how disease has changed the articulation to which we refer.

The animal was cast and life was stolen from him by the pithing operation. The skin was laid back and the anterior extremities were removed. The great serratus muscles were very pale in color and soft in structure, as well as greatly atrophied. The other muscles surrounding the articulation, except one which will be described later, were in normal position and structure. The ligaments binding the bones together were in position but were thickened, roughened, and of a dull, leaden hue. The synovial membrane was of the same color, but contained congested patches, showing the inflammatory process that had been going on; as a result of which thickening and roughening occurred.

The articular cartilages were also of the same color and roughened, thickened, and ulcerated in several places.

The neck of the scapula, instead of being smooth, as in health, was very much roughened by the ulcerative process, and by the exostoses thrown out. The coracoid process,

instead of being prominent, was but a roughened surface caused by extensive ulceration. The smooth articular head of the humerus was replaced by a very rough irregular eminence, the result of extensive ulceration. The bicipital groove in the same manner was roughened by numerous exostoses and ulcerations. Not only was this groove and head the only part of the humerus affected, but the whole superior extremity was covered by quite considerable bony deposits, results of the periostitis.

These are, indeed, all very interesting lesions, but those found in brachial biceps are equally, if not more so. They were torn from their superior attachment, at the coracoid process. They were swollen and of a normal color, but showed evidence of the laceration of some of the muscular fibres. Section showed that degeneration had taken place, by which many of the fibres had taken on a tendinous aspect. The ligamentous band that runs through this muscle was thickened and much discolored, and was not of its strong nature, but softer and more pliable. This change was noticed in this band from its inferior third to the superior extremity, which ought to have been fastened to the coracoid process.

The rupture of the superior extremity of this muscle from its place of insertion is the obvious cause for the position assumed by the animal. All the lesions found are evidences of an extensive acute arthritis. Both joints showed the same lesions, probably the near more extensively than the off side. Is this all a result of the rheumatism? Or will some one kindly offer some other explanation? One more word to show the importance of the brachial biceps muscle to the animal while he is standing. Not only is it a tensor of the antibrachial aponeurosis and a flexor of the forearm, but, through the medium of the inextensible ligamentous band which traverses its center, prevents the closing of the scapulo-humeral angle. So long as this angle is maintained, the animal assumes his normal position, but as soon as it is closed the positions assumed by our animal will be the result.

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## SOCIETY MEETINGS.

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### UNITED STATES VETERINARY MEDICAL ASSOCIATION.

The annual meeting convened at 10 A.M. Sept. 15th., in Willard's Hall, Willard Hotel, Washington, D.C., with about seventy-five veterinarians present, or less than one-half the number confidently expected. The attendance presented some peculiar aspects. In return for the trouble and expense incurred by the very respectably-sized body of eastern veterinarians who journeyed to Chicago last year, five western veterinarians appeared, one from Minnesota, one from Missouri, while Indiana furnished three. Iowa with one hundred, Illinois with one hundred and fifty, and Ohio, with probably more than one hundred and fifty within her borders were not represented. Have eastern and western veterinarians really become amalgamated? Do western veterinarians fail to comprehend the real value of a strong, representative national organization?

In extenuation it may be said, that western veterinarians are young men, just struggling for a footing in new territory; that there has recently been inordinate crowding, owing to the excessive output of our colleges, and added to this, most regions in the Mississippi Valley have been very healthy for two or three years past, and veterinarians have suffered in consequence. But western veterinarians were not the only absentees. The veterinary colleges were poorly represented, although we have a right to expect that these founts of learning should always be conspicuous in these meetings. One of the two-year colleges, conveniently located, was represented by two members of its faculty, another two-year college had no representative present until the afternoon of the last day, when one of the faculty arrived in time to make a brief speech in favor of questionable modes of advertising and to sit down to the banquet. The other veterinary colleges, a dozen or so in number, were not represented. Are our veterinary colleges opposed to the U. S. V. M. A.? Have our professors of veterinary science the good of their profession

at heart? Their reasons for not attending would be interesting.

We also have in the United States some twenty-five or thirty professors of veterinary science in agricultural schools, and veterinarians to the United States Agricultural Experiment Stations in connection therewith. They enjoy (with one exception) good salaries, have comparatively light work, with good opportunities for study and research, and are selected for their positions because of their superior educational qualifications. Their work is such that they can leave it, if so desired, and these representatives of the best element of our profession, were represented at the meeting by one (!) man, and he the youngest of the entire number, who had left a private practice but a few days before. Do the educational institutions, the States who employ these men at good salaries, respect the veterinary profession or care to have the veterinarians in their service do so? Out of a goodly number of State veterinarians we discovered two at the meeting. Is it useless for these public servants to attend these meetings, at each of which there are reports, papers and discussions relating directly to their duties?

The Bureau of Animal Industry was well represented, not alone by employees located in Washington, but by several from a distance. The most consoling fact in connection with the attendance was, that in spite of the absence of the "leading lights," the common, everyday practitioners went to work with a will, and held the *best* meeting in the history of the Association. This demonstrates that our profession has abundant resources in the ordinary private ranks, and can get up a good meeting whenever necessary.

President Huidekoper, in a few well chosen remarks, welcomed the members to the meeting, recounted the present rapid and healthy growth, and urged members to united efforts toward further advancement.

The report of the Comitia Minora was received; about thirty new members elected; several old members dropped from the rolls for non-payment of dues; and at the hour of 12:30 adjournment was had, in order to partake of an elegant

lunch prepared by the Washington and Baltimore veterinarians.

After lunch the Association listened to a very interesting report on Intelligence and Education, by the Chairman of the Committee, Dr. Peters, of Massachusetts, who gave a very instructive resumé of veterinary education in the United States, and then reviewed, at some length, the results of recent investigations in relation to diseases of animals, during the course of which he took occasion to criticise somewhat unfavorably some of the conclusions and methods of the United States Bureau of Animal Industry. The discussion of Dr. Peters' report was in no wise as extensive and animated as the production and subject merited.

The Chairman of the Committee on Diseases, Dr. Butler, of Mississippi, was absent, and his report, containing many points of interest, was read by the Secretary. The Special College Committee, through its Chairman, Dr. Lyford, of Minnesota, made the time-honored report that most of the colleges *avored* a three year college curriculum, but were prevented from attaining their desires through the shortcomings of some neighbor. As we have already indicated, the Association has now started to move in the matter as a body, hence the committee's report was accepted with thanks, and the committee discharged.

Dr. Miller, of New Jersey, presented an interesting report on Army Legislation, reporting failure of all efforts so far made to elevate the veterinary service in the United States Army.

The chief objections of past bills were presented in a clear manner, principal among which is the objection, by existing army veterinarians, to clauses in the proposed bill which they feel would jeopardize their positions and bear upon them unjustly. The Chairman recommended that the work be continued, and a new bill drafted in which an effort shall be made to meet the views of existing army veterinarians.

The Special Committee on Food Inspection reported through its Chairman, Dr. Williams, of Indiana, giving a brief resumé of national and international meat inspection, its use-

fulness in relation to human health and national economy, the difficulties to be encountered, and suggestions for meeting them. A classification was proposed for diseased meats which possesses some new features, and divides the entire category into four classes.

(a).—Meat affected with animal parasites.

(b).—Diseases not transmissible to man, but during the course of which ptomaines or chemical substances are produced which when ingested may produce toxic effects.

(c).—Diseases transmissible to man and which during their course develop ptomaines or other toxic substances.

(d).—Diseases transmissible to man, in which the sole danger exists in the living micro-organism.

This committee was appointed at the meeting of 1890, largely for the purpose of continuing the discussion on the paper of Prof. Schwartzkopff of Minnesota, on national and international meat inspection. The chairman took issue with Dr. Schwartzkopff in his assertions last year that actinomycosis is not a contagious disease, and reviewed at some length facts in support of his position. He commented upon the fact that thus far the supporters of the non-transmissibility of actinomycosis had confined their contributions to agricultural or stock papers, and had avoided the columns of scientific journals, and asked that Dr. Schwartzkopff and his colleagues should for once present their reasons for their belief before a scientific body, where the subject could be discussed upon a scientific basis.

Our ideal Secretary, Dr. Hoskins, of Pennsylvania, presented an admirable report upon the work which he has so energetically carried out in behalf of the Association.

Drs. Lowe, of New Jersey, and Grange, of Michigan, presented interesting reports as State Secretaries for their respective States.

The afternoon being far spent, only a few of the first reports were discussed, and they quite briefly.

The retiring officers were then re-elected by a practically unanimous vote, being a fitting tribute to their efforts in behalf of the Association during the past year. The result was

eminently satisfactory to all present, although it is quite probable that some absentees will unfavorably criticize the practice of re-electing the same officers for several terms. There are two remedies available to them. They can attend the meetings and cast their ballots according to their faith, or have the constitution changed so they can vote by proxy.

The morning of September 16, with the promise of interesting papers, drew out a somewhat better attendance than that of the previous day.

Dr. Lyford, of Minnesota, presented an excellent paper on "Barren Mares," a topic of great interest and value, which has been much neglected in veterinary literature. It was liberally illustrated and brought out a fair discussion. Dr. Bryden, of Massachusetts, followed with a paper on cattle transportation, which was full of interesting information, especially to those not directly acquainted with the subject.

In general he claimed that export cattle were badly handled, crowded in unsuitable cars, kept on board cars for an inhuman length of time, unloaded in muddy, unprotected, ill-arranged stock yards, and thus rendered unfit for trans-Atlantic shipment before being loaded on shipboard.

The essayist held that the Bureau of Animal Industry by its rules was forcing ship companies to undergo great expense and inconvenience in making changes in cattle-carrying vessels, which with these changes and expense rendered the transportation neither safer nor more humane, consequently he believed the recent regulations governing cattle-carrying vessels partook largely of persecution, and that the ocean steamers should be more leniently dealt with, while railroads and stock yards should receive more attention from the Bureau. His paper brought out a spirited discussion, participated in mainly by the essayist and the representatives of the Bureau of Animal Industry. The latter stoutly maintained that no such condition of affairs existed in their various districts, and mildly hinted that the abuses were possibly confined to the city of culture.

Dr. Williams, of Indiana, presented an illustrated paper on "Rachitis," the most noticeable point being that he held rachi-

tis and osteoporosis to be identical, a claim not heretofore made in English veterinary literature, although such Germans as Friedberger and Fröhner have taken this view, while Dick-erhoff dissents and agrees with most English veterinary writers. This position will doubtless be assailed promptly by those believing with the mass of English veterinarians.

Dr. Huidekoper, of New York, presented a good paper on "Identification of Animals," the publication of which will give us something entirely new in English veterinary literature, and will doubtless receive a critical study.

The discussion of the papers of Drs. Williams and Huidekoper, and the discussion on Dr. Liautard's paper, postponed from last year, were unavoidably postponed, owing to the lateness of the hour, until next year.

The papers, reports, discussions and transactions will appear promptly in print in a special publication in compliance with the wishes of the Association. So we need only counsel a careful study of them all. The papers, as a collection, are equal to those of any meeting in the history of the Association. They were damaged, however, by a want of time for discussion. We had either too many papers or too little time. It is becoming quite evident that the length of our meetings must again be increased by the addition of one or two more days, so that we can do our work well. The adjourned discussions and unfinished business left over from this meeting will crowd to its utmost one day of our next meeting. Reports of committees, etc., will claim another day, so what will we do about papers for the meeting of 1892? Three or four years ago one day was ample time for all business and papers. Surely we are presenting encouraging signs of growth and prosperity.

The banquet, which closed the twenty-eighth annual meeting of the Association, proved to be an event which can be remembered by those present only with pleasure, and brought to a climax the unceasing and careful work of the local Committee of Arrangements, which from beginning to end passed along smoothly and promptly, so that the vote of thanks tendered it at the close of the meeting was a fitting compliment to a work well done.

Sixty plates were placed at the banquet table, and sixty persons partook of the feast. The menu was excellent, the decorations beautiful.

On President Huidekoper's right sat the Hon. J. M. Rusk, Secretary of Agriculture, on his left Dr. Parsons, of the United States Bureau of Animal Industry, while occupying prominent places were ex-Congressman Warner, of Missouri, and Mr. Hills, of the Bureau of Printing. After having done full justice to the delicacies set before us, President Huidekoper, as toast master, after some carefully chosen words, which kept members generally in ignorance of whose name was to be coupled with the toast to "The President," called on Dr. Gadsden, who was surprised, but amid a mixture of blushes and good humor did ample justice to this loyal toast.

"Our Profession" was ably responded to by Prof. Robertson, of New York, who lavished unstinted praise upon the American veterinary profession and drew especial attention to the fact that American veterinarians, with their deficient education and short college courses, yet manage through inherent enterprise and adaptability to maintain a high rank alongside their colleagues from the long-course colleges of other countries.

"The Department of Agriculture" was responded to in a happy manner by Drs. Michener and Parsons, of the Bureau of Animal Industry.

The Hon. J. M. Rusk, Secretary of Agriculture, held the closest possible attention of all, and elicited frequent and hearty applause, while speaking of the mutual interests of agriculture and veterinary science, and of the inestimable and essential value of our profession to agriculturists when our national wealth is threatened by contagious and epizootic animal diseases.

Ex-Congressman Warner, of Missouri, kept the banqueters constantly shifting from laughter to applause while responding to "The United States Congress."

The "Press" was ably championed by Mr. Hills of Washington; "Our Colleges," by Dr. Lyford, of Minneapolis, and "The Society for Prevention of Cruelty to Animals," by Dr.

McLean, of Brooklyn. "Veterinary Associations" was the theme assigned to Dr. Williams, of Indiana, who briefly spoke of their duties to the profession, their usefulness to individual members and to the profession as a whole, and expressed the wish that they should grow in numbers, usefulness and thought.

Dr. Faville, of Baltimore, as one of "Our Hosts" assured the members of the great pleasure it had given them to do what lay in their power to render our stay in Washington pleasant and profitable. The venerable Dr. Michener, Sr., spoke of the early days of our Association, and Dr. Winchester, of Massachusetts, closed the list, who, as one of "Our Visitors," paid due compliment to the excellent arrangements and entertainment provided by the local Committee of Arrangements, after which the various members bid each other adieu until a year hence, and so was ended one of the most enjoyable and profitable meetings in the history of the United States Veterinary Medical Association. W.

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#### NEW YORK STATE VETERINARY MEDICAL SOCIETY.

The semi-annual meeting of the New York State Veterinary Medical Society was held in the parlors of the Grand Central Hotel, New York, on Wednesday August 12th, 1891. Owing to the delay of the members in reaching the city, the hour for calling the meeting to order was extended.

President Morris called the meeting to order at 10.10 A. M. A limited number of members responded to the roll-call, but several members came in later in the day. Letters and telegrams of regret were received from members of the Society, and the profession generally.

There were also present, W. Horace Hoskins, Secretary United States Veterinary Medical Association; Prof. A. Liautard of New York; Roscoe R. Bell, D.V.S., President, and Geo. H. Berns, D.V.S., ex-President of the Long Island Veterinary Society, and other prominent members of the profession from New York and Brooklyn.

President Morris delivered an address of a few well chosen

remarks, explaining why the place of meeting was changed. It was done to please the members of the profession in the eastern part of the State, and especially those of New York and Brooklyn, and to endeavor to get their valuable aid and assistance in promoting the matters pertaining to legislation, and the good of the Society, and to give those desiring to become members of the Society an opportunity to do so. Dr. Morris also said that he understood the impression had got abroad that this Society was simply one for the western and middle part of the State. Now, regarding this, he wanted it distinctly understood that such was not the case, that it was not an eastern nor a western society, but just as its name implied, a *New York State Society*, its purpose being to try and benefit every qualified veterinary surgeon in the State of New York, whether a resident of one of the large cities of New York or Brooklyn, or a remote village of the interior, and it being the intention to get all interested and to all work together for one grand cause, to elevate the profession to its proper standing so it will become better recognized by the local and national governments, and by the public at large.

The Secretary then read a synopsis of the minutes of the last meeting, which were approved by the Society.

In the absence of Professor Law, who came in later, President Morris made a report on what had been done pertaining to legislation.

President Morris said that there had been seventy-six votes cast for the bill when eighty-four votes would have passed it; showing that the labors of the committee had been effectual to a certain extent, and that we ought to keep pushing the matter. He also repeated that the object in going to New York was to get the assistance of the veterinary profession in getting the bill through the Legislature.

He said there was no reason why it could not be supported from a sense of merit, as it would oblige men who wish to enter the profession, after its passage, to do so through a college or university granting veterinary degrees.

President Morris then made a motion that a resolution of thanks be offered by the members of the Society to the Hon.

Rufus S. Peck for the service rendered in introducing the bill and supporting same when brought up for action. Prof. Jas. Law seconded the motion, which was carried unanimously.

*Resolved*, That it is the sense of the New York State Veterinary Medical Society that individually they owe a debt of gratitude, and appreciate the valuable service rendered by the Hon. Rufus S. Peck of Cortland, for his untiring energy and fidelity in behalf of the Veterinary Surgeons' bill, which he so ably fathered during the last session of the State Legislature.

And that we, the representative veterinary surgeons of the State of New York, feel under personal obligations to Mr. Peck, and that we deem it a privilege to express the same to him.

President Morris then said that if any member of the profession present wished to discuss the merits of the bill, they were at liberty to do so. Quite a discussion followed, regarding changes in certain clauses, which were amicably settled.

Prof. A. Liautard suggested that a meeting of all the qualified veterinarians in New York State be called for the purpose of making every one acquainted with the merits of the bill. He also suggested that seven members of the Board of Examiners be chosen from the members of the New York State Veterinary Medical Society, and that eight members of the Board of Examiners be chosen from members of the profession throughout the State who hold diplomas from some college or university granting veterinary degrees. This was made a motion by Prof. Law, and seconded by Dr. Jno. Wende, voted on and carried.

The discussion was then continued by Prof. Law, Prof. Liautard, R. R. Bell, D.V.S., G. H. Berns, D.V.S., and several other prominent members of the profession. At the close of the discussion all agreed that the bill was all that could be desired at present and that it would be approved by the profession at large, and that each and every legally graduated veterinary surgeon should use his personal influence and energy to secure the passage of the bill.

Adjournment was then taken for dinner.

President Morris called the meeting to order at 2.30. P.M.

The following applications for membership were received by the Censors and placed on file :

R. S. Huidekoper, M.D., V.S., New York City ; Geo. H. Berns, D.V.S., Brooklyn ; Roscoe R. Bell, D.V.S., Brooklyn ; H. McWhinnie, D.V.S., Troy ; L. E. Willyoung, D.V.S., Albion ; W. A. Conklin, D.V.S., New York City ; Wm. Machan, V.S., New York City ; G. B. Ackerman, D.V.S., New York City ; L. McLean, M.R.C.V.S., Brooklyn ; C. B. Comstock, D.V.S., New York City ; Wm. Somerville, V.S., Buffalo.

Prof. A. Liautard was made an honorary member by a unanimous vote.

A resolution of thanks was tendered the visiting members for the interest they had taken in the matters brought before the meeting and all were asked to become members of the Society.

President Morris then proceeded to read his paper on "Tetanus."\*

A lively discussion followed the reading of the paper, of which the following is a synopsis.

Prof. Law said that at present there was no doubt as to the germ theory and stated his experience in several cases ; also said that some cases were known to have recovered without any treatment, while other cases with the best medical treatment succumbed to this fatal disease.

Prof. Liautard was also of the opinion that the disease was caused by the bacillus tetani and when possible large doses of purgatives might be administered, with antiseptic treatment to wound in traumatic cases, with of course strict quietude.

Prof. Law thought the early use of slings was of great benefit.

Dr. Geo. H. Berns stated his experience in citing seventeen cases he had at one time, which he treated with large doses of purgatives, and one-ounce doses of tartar emetic in the drinking water three times daily for about a week ; then alternated it with one-ounce doses of powd. lobelia, and of course other

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\*Published in this issue of the REVIEW.

antiseptic treatment of the wounds, quietude and slings. He stated he was successful in a good recovery of thirteen of his patients out of the seventeen cases.

Dr. H. McWhinnie cited a case which made good recovery by blistering and hot poultices applied to the spine and mastoid muscles.

Dr. R. R. Bell said that although he did not have the affidavit for this he thought it could be shown to be true, that a horse suffering from a severe attack of tetanus while being taken from his owner's stable to a veterinary hospital in an ambulance, and while passing under the elevated railroad, became frightened and either jumped or fell out of the ambulance to the pavement and immediately got up and walked home "cured by the shock."

Dr. L. Willyoung said he had good success by slinging his patient about three or four days and giving large doses of purgatives, followed by large and oft repeated doses of solid or fluid extract of *cannibis indica*. So far had not lost a case out of seven or eight cases he had treated.

Dr. Wm. Somerville, Jr., thought that the best treatment was perfect quietude, allowing no one to disturb the patient, and giving no medicine except a brisk purgative to clean out the alimentary tract, allowing nature to do the rest. He had treated cases both with this form of treatment and with the many ways laid down in our text books, but had better success by leaving the animal to wonderful *vis medicatrix naturæ*.

Prof. Law said that animals left alone would on the fourth or fifth day be found to be perspiring very much and would do so from twelve to twenty-four hours, when the spasms of the muscles would appear to be considerably relaxed and better, and thought that hot water baths would be beneficial.

Dr. N. P. Hinkley related cases where he had tried the steam baths. In some, "as in other treatments," they recovered and in others they died.

Several other gentlemen continued the discussion of Dr. Morris' paper, which brought out several good bright ideas in the different cases and treatment of tetanus and it was quite late in the afternoon when the discussion closed.

As this was to be a one-day session and most of the gentlemen present had to return home by the early trains, the reading of the other papers was postponed until the next annual meeting.

The meeting was then adjourned until the second week in January, 1892, subject to a call from the Secretary.

N. P. HINKLEY, D.V.S. *Secretary.*

#### 4 PENNSYLVANIA STATE VETERINARY MEDICAL ASSOCIATION.

The Pennsylvania State Veterinary Medical Association held its semi-annual meeting at Wilkesbarre, September 8th, in the county medical hall. At roll call Drs. Kooker, G. B. Raynor, Hart, Shaufler, T. B. Raynor, Hoskins, Goentner, Ridge, Foelker, Stanton, Timberman, Butterfield, Kiel and Sallade were present.

The visitors were Drs. C. H. Good, Kellar, Vanderbilt, Bloom and Walters. Minutes of March meeting read and approved.

Dr. Hoskins recommended we have blank forms for applicants for membership, to facilitate finding the standing of applicant.

The applications for membership were: Drs. Waugh, of Allegany City (presented by Dr. Hoskins); Dr. Kellar, Williamsport; Dr. Good, Lock Haven; Dr. Millar, Jenkintown. Reported favorably, and they were elected to membership.

The Committee on Legislation, Dr. Hoskins, chairman, reported as follows:

*"Mr. President and Gentlemen:*

*"As your chairman on legislation I can only report the most unanimous inaction on the part of your committee for the past six months that have elapsed since its original appointment.*

*"The cause for this lack of seeming duty is well known to you all. I offer no excuse for its existence, inasmuch as the unfortunate amendment to our act, extending the time of registration of non-graduates, had become a law before your committee knew of its existence, and was conceived and blos-*

somed into the mature flower before one-half of those who constituted our legislators dreamed of its possible conception. I would not underestimate the responsibility resting upon those who knew of its probable birth and witnessed its entrance into life; and who did not at this same time realize the necessity of informing your committee of its existence. The additional registrations, so far as learned, have not been excessive owing to the unusual number who had done so before the first limit of the time had expired. In Philadelphia but four non-graduates have registered since its passage.

"At present we are pressing fearlessly, through the able and unselfish assistance of Dr. James A. Waugh, of Pittsburgh, two prosecutions on the ground of false statements, registered in Alleghany County, as to the possession of diplomas.

"One of these unfortunately is a member of this Association, much to our regret, but no leniency will be shown on this ground, as he, above all others, should have known better and well deserves to be meted out a just punishment. What further action remains to be taken between now and January 1st will entirely depend upon circumstances arising from time to time. We believe it is wise to remain quiet until that time lest an unfavorable decision against us would encourage a large number to register, which would necessitate a very great expenditure of time and money to eliminate.

Respectfully submitted,

W. H. HOSKINS, *Chairman.*"

Dr. Waugh will be furnished money for prosecution by the Association. Dr. Hoskins presented a bill of \$26.96 as costs in Lancaster suit, which was ordered paid.

The chairman, Dr. Huidekoper, of the Committee on Intelligence and Education, not being present, the report was made by Dr. Sallade, one of the committee.

"*Mr. President and Gentlemen:*

"While nothing of special moment has taken place in veterinary practice since our last annual gathering, nevertheless your committee cannot help congratulating the Society and the profession in general upon the steady advance which veterinary science is making throughout our own country and

abroad; and while much more might be desired in certain quarters in the way of organization and consolidation, still we have every reason to congratulate ourselves that there never was a time when so many able practitioners were at work, or so many learned publications bearing upon the profession issued from the press in various languages as to-day. The great impetus given to every department of science by the investigating, analytical spirit of the age has fairly taken possession of our particular field, and it is our glory in this land and in this age to be the witness as well as adepts in a most useful science, which was regarded as venerable among the most remote people of whom we possess authentic history. The high antiquity of our profession, the supreme importance which it occupies in the physical economy of our modern society, its eminent respectability withall, at once constitute the guardians of the physical welfare of those dumb animals with which a beneficent providence has been pleased to surround man in order to his aid, comfort and enjoyment; and thus, in lending our intelligent efforts to the conservation of them, we are indirectly laboring in the highest interest of society itself.

"It is for these reasons that it well becomes the Society to enlist in its behalf the best intelligence to be obtained, and insist upon a thorough scientific course in some recognized veterinary school preparatory to entering upon legitimate practice, and in this particular your committee feels itself constrained to reiterate with emphasis the various salutary recommendations of former committees on intelligence and education of this Society, and those especially which regard the duration and quality of the course of study to be pursued, as well as the character of the student himself. For it cannot for a moment be doubted that the learning and character of our practitioners will have, I may say, all to do with the shaping of the destiny and the attainments of the ultimate results of veterinary science. And it has for this reason, as well as on account of the close relationship existing between the methods of treating the various diseases of man and beasts, that the veterinarian should, in justice to his pro-

profession, emulate the character and rival the scientific attainments of his brethren of the sister medical profession. Upon the character, as well, of our practitioners, will, in no small measure, depend our success when we knock at the door of the halls of legislation, and demand that protection and pecuniary encouragement which a science so far-reaching in its consequences to society merits, and which we, as its worthy representatives, will have reason to expect will be granted us.

"The age of the so-called 'Horse Doctor' is gone forever. We are, instead, an organized body of veterinary physicians, extending the benefits of our science to, and employing our efforts in, a broader and less restricted field than heretofore. The horse is only one of the objects of our professional solicitude. The various species of cattle and other domestic animals, especially those whose flesh is used for human consumption, likewise belong to the sphere of our scientific investigations. The splendid scientific triumphs of recent years in bacteriological and tubercular pathogeny are matters of the most profound interest to the veterinarian, and should engage his most earnest attention. And in connection with this, your committee would suggest that within the jurisdiction of this Society, where so many Jersey cattle are imported and raised, the special study of tuberculosis is absolutely necessary in order that we may be able to intelligently answer the many calls made upon us, since it is quite as certain that the great majority of this breed of cattle is infected with the dread disease in either a mild or malignant form, as it has recently been proved to a certainty that the milk and butter obtained from them carry with them the germs of tuberculosis. And while recommending this special study on account of the peculiar circumstances in which we find ourselves placed, in a general sense, your committee would also recommend, in case the Society still believes the old adage, that an ounce of prevention is worth a pound of cure, the thorough study of prophylactics, always interesting, even when not applied; and thus having, as it were, both ends of the disease, whatever it may be, within our grasp, we will be able the more readily to respond to the

expectations of our patrons, and the sooner merit the title which it should be the ambition of each and every one of us to covet, the title of *true veterinarian*.

JAS. W. SALLADE, *Committee*.

It was moved that the report be received and a vote of thanks extended to the committee. Carried.

The Chairman of the Committee on Sanitary Science, Dr. Zuill, was not present. Dr. Timberman, one of the committee, said they had no report to offer.

Dr. Hoskins reported that a new veterinary association had been started in Pittsburgh by Drs. Waugh, Carter, and MacNeil, and moved that the Secretary send Dr. Waugh our best wishes, and ask them to send delegates to our next meeting. There being no unfinished business, the Society proceeded to new business.

Dr. G. Meyer having been charged with false registration, the charge was referred to Board of Censors at the March meeting. Dr. Sallade moved to expunge that part of the minutes which records the refusal of the Society to accord honorary membership to the gentleman Dr. Meyer had proposed. Carried. Dr. Hart moved that the code of ethics be read at every meeting, which was lost.

The Corresponding Secretary not being present, there was no report, but he sent a communication stating that Dr. Weber has been very sick with typhoid fever, but was improving slowly. Dr. Hooker spoke of Dr. Weber's misfortunes in sickness during the last few years, when Dr. Hoskins moved that we tender him our sincere sympathies, which was carried.

Dr. Hart said that the President should give us a lecture to improve us in our actions toward one another, to stop this wrangling about the code of ethics.

The Secretary shall be notified by the Treasurer the names of the delinquents, so that they can be acted on at March meeting.

A paper was read by Dr. Butterfield on "Results of Laryngitis."\* Then Dr. Hoskins read a paper on "The Vet-

\*Published in this issue.

erinarian as a Sanitarian,"—a very able paper.\* The Association extended a vote of thanks to Dr. Hoskins, also ordered 1000 copies printed for distribution.

In discussion, Dr. Hoskins said if we had sanitary inspectors we have no laws adequate to the occasion. That is if we discover a case of glanders in the northwest part of the State, we have to send to Dr. Bridge in Philadelphia before action can be taken. We have no members on the Board of Health, nor even recognized by it. The public should be educated up to the point that they will demand laws governing public funerals in case of contagious diseases. He stated that eighty children had died in one town of diphtheria, yet nothing was done to prevent the spread of the disease.

Dr. Sallade was asked his views, when he said he already had expressed his opinion on this subject, as he had read a paper before the Association on "Cremation," and is also a leader in the Bovine Association. He said that Association had brought dollars into his pocket, and had also aroused the people to the dangers in the food supply. He had rid the community in which he resides of tuberculosis in cattle. When a man buys a cow, the Bovine Association sends him to examine the cow, and if tubercular, it is at once dispatched. He gave the symptoms from which he diagnosed tuberculosis: Slight rise in temperature, tenderness along the spine, emaciation, continued œstrum, sibilant rales in lungs.

Dr. Ridge reported a case of abscess in the left guttural pouch,\* while Dr. Shaufler thought, as did Dr. Ridge, that it was pharyngitis at first, then extending to pouch, as Dr. Shaufler had a case very similar which he felt very sure was originally pharyngitis.

Dr. Ridge cited a case of gangrene of anterior lobe of lung without being recognized by two good practitioners. Dr. Hoskins thought we might have gangrene of a small portion without it being readily recognizable, but thought we always have an increase in temperature, and as it is very

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\* Published in this issue.

difficult to auscult that portion of the lung, we have to be on our guard. Dr. Sallade thought the injury was an old one. A vote of thanks was extended for a report of the case.

Dr. Hart said that fifteen years ago no veterinarian would dare acknowledge a mistake. But to-day they will call a brother practitioner in at any time and talk over a case, as true men should do. We are here to exchange ideas; it is seldom we find every one of the same opinion.

Dr. Hoskins reported his visit to the New Jersey Association and expressed himself as being well pleased with his visit. He spoke of receiving a letter from a veterinarian censuring him for encouraging quacks [non-graduates] to join our Association. The paper that the letter was written on was illuminated with a barnyard scene, explaining the place of graduation, etc. It is needless to say that the writer received a very caustic reply. He said we made no mistake when we take in gentlemen who were non-graduates; some of our best workers are non-graduates.

Pres. Kooker advised the local veterinarians to form associations. We should have these all over the State.

Dr. Kellar reported a case of a mare that had a discharge from the vulva. She had aborted a short time before. On examining vagina he could not find anything to cause the trouble, but on dilating he found a hard substance inside. He removed four calculi and then found another one which was so sharp he had to wrap a chamois around it before removing it.

In following July he saw a similar case. The hymen was not ruptured; found os entirely closed; dilated with forceps and removed four calculi. A short time after saw another case of a western mare which had a discharge from vulva, and was returned. On examination he found a calculus in uterus. These stones resembled those lying in the road, and at first he thought they had been placed in the uterus to prevent eversion, as mare aborted a short time before, but when he came to the case of unperforated hymen, he could not imagine how the stones could have gained entrance. The stones were sent to Dr. Hooker to be examined.

Dr. Good reported epidemic ophthalmia of horses around Lock Haven.

Three bills, amounting to \$28.75 in favor of Dr. Gladfelter, were ordered to be paid.

The delegates appointed to attend the United States Veterinary Association were Drs. Folker, Harger and Webster.

After the Association adjourned. Dr. Walters escorted the members and their wives to the Nottingham coal mines. After going down and mining coal the company returned to their homes, feeling highly pleased with the meeting and the kindness shown by the Wilkesbarre veterinarians.

W. H. RIDGE,  
*Secretary pro tem.*

#### KEYSTONE VETERINARY MEDICAL ASSOCIATION.

At the annual meeting of the Keystone Veterinary Medical Association, held at the College of Physicians, 13th and Locust streets, Philadelphia, September 5th, 1891, there were present Drs. Hoskins, Drake, N. Formad, Eves, Goentner, and Kooker.

On motion the reading of the minutes of last meeting were dispensed with, and the election for officers was held with the following result: President, W. Horace Hoskins; Vice President, Hiram Eves; Secretary, W. S. Kooker; Treasurer, Charles T. Goentner. Trustees.—Drs. Weber, Huidekoper, Lusson, Webster and Drake. Dr. F. Bridge was elected associate member.

The chair appointed Drs. Eves, Goentner, and Lusson delegates to the United States Veterinary Medical Association, to be held at Washington D. C., September 15th and 16th, 1891.

Dr. H. Formad was present prepared to read a paper on tubercular milk and meat and its effect on the human family, but on account of a pressing engagement preferred reading it at the next meeting.

On motion adjourned.

W. H. HOSKINS,  
*President.*

W. S. KOOKER,  
*Secretary.*

## SPECIAL NOTICE.

The members of the Keystone Veterinary Medical Association of Philadelphia and vicinity, and all members of the veterinary and medical professions are hereby given notice that the meetings of the Association will be resumed at the College of Physicians, 13th and Locust sts., on Saturday evening, Sept. 5th, 1891, and will be held on the first Saturday evening of each month until further notice.

The opening night will be favored with a paper from the pen of Prof. Henri Formad, entitled—"Can Tuberculosis be Transmitted by the Use of Milk?"

The consideration, by so eminent an authority in the scientific arena, of this important subject, which is attracting so much attention throughout the world, should ensure the attendance of every veterinarian in the vicinity.

M. W. DRAKE, *Secretary*.

## SOUTHERN VETERINARY MEDICAL ASSOCIATION.

At a meeting of Southern veterinarians, held July 4th, in the reading room of Lick's Hotel, Nashville, Tenn., the Southern Veterinary Medical Association was organized by the following gentlemen: Drs. J. R. Anderson and B. H. Beuter, Louisville, Ky.; J. E. Poe, Knoxville, Tenn.; T. W. Scott of Memphis; W. J. Richardson, Columbia, Tenn.; E. R. Forbs, Chattanooga, Tenn.; J. W. Jamison, Paris, Ky.; T. H. Haggard and W. C. Rayen, Nashville, Tenn.

The following officers were elected: President, Dr. E. R. Forbs; 1st Vice-President, Dr. J. R. Anderson; 2nd Vice-President, Dr. F. H. Haggard; 3rd Vice-President, Dr. T. W. Scott; Secretary and Treasurer, Dr. W. C. Rayen.

After the election of officers and the adoption of a constitution and by-laws, the Association adjourned to meet again in this city October 22, 1891, when it is confidently expected there will be a much larger attendance than at the first meeting.

W. C. RAYEN, *Secretary*.

## OBITUARY.

J. F. McGRATH, D.V.S.

We have received the sad news of the death of Dr. J. F. McGrath of Pawtucket, R. I., which took place on the 16th of August, from typhoid fever. Dr. McGrath graduated in the American Veterinary College, class 1887. Respected by all, he had many friends, and his loss is keenly felt by those who knew him. As a practitioner, he was very successful, and, in the few years of his professional life had succeeded in getting a good reputation as a veterinarian.

## CORRESPONDENCE.

HILLSBORO, O., September 22, 1891.

*Editor American Veterinary Review:*

I see it is the sense of the last meeting of the Ohio State Veterinary Association that "horses with undeveloped testicles are not reproductive, but that bulls, rams and boars often are."

I have taken the liberty of presenting a few words from "Sexual Impotence in the Male, (Human,) by Wm. A. Hammond, Surgeon General U. S. A.," etc.

Speaking of hidden testicles he says as follows; "In such instances it is usually the case they are atrophied, and that the sexual power of the individual is very materially lessened. In those cases in which only one testicle has failed to descend into the scrotum the ability to have intercourse is not usually markedly diminished, but when both have been retained it is almost invariably the case that the individual has neither desire nor power, neither orgasm nor emission of semen. In fact, he assumes in many respects, the mental and physical attributes of the female sex. These phenomena are due, not to the original absence of the organs, but to the fact that owing to the abnormal position they occupy, they have not undergone the development which occurs at puberty, and that consequently they fail to secrete semen. Besides this, the organs suffer a positive atrophy, as indeed does every

organ the development of which may be from any cause arrested. But if the individual should after puberty, or even shortly before that period, be deprived of his testicles, though, of course, sterility is the consequence, it is not always the result that absolute impotence supervenes. As we have seen in the foregoing chapter, desire may exist.

"It is equally a fact that in certain rare cases erections and ability of intromission, with the emission of a fluid—composed of prostatic secretions and that from Cowper's glands and urethral mucus, etc.—may take place in individuals who had been deprived of their testicles. In some instances there is a mild kind of orgasm, accompanied by a certain degree of voluptuous feeling.

"Thus Sir Astley Cooper removed both testicles from a man, and the patient four days after had an emission of a fluid from the meatus resembling the seminal fluid. For nearly twelve months he stated he had emissions *in coitu*, or that he had the sensations of emission. That he had erections and coitus at distant intervals, but without the sensation of emission. After two years he had erections very rarely \* \* \* . Ten years after the operation he said he had during the past year only once connected. Twenty-eight years after the operation he stated that for years he had seldom any erection, and then that was imperfect."

Trusting this may prove of some interest to your readers, I remain,

Yours most respectfully,

S. R. HOWARD, V.S.

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#### POSITION WANTED.

Wanted, by a graduate, a situation as assistant with some veterinarian (hospital in connection with practice preferred). No salary required. For further information, address

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A middle aged, qualified Veterinary Surgeon (M.D., V.S., preferred) who has had an extensive experience, also an established reputation, good character and thorough business ability, with means to take an interest in a large practice.

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